

ABSTRACT OF THE DISCLOSURE

There is provided a method and apparatus for etching a ruthenium film which can sufficiently etch away a ruthenium film formed on or adhering to the peripheral region, especially a no-device-formed region, backside or other portions of a substrate. The method comprises etching a ruthenium film formed on a substrate with a chemical liquid having a pH of not less than 12 and an oxidation-reduction potential of not less than 300 mVvsSHE.